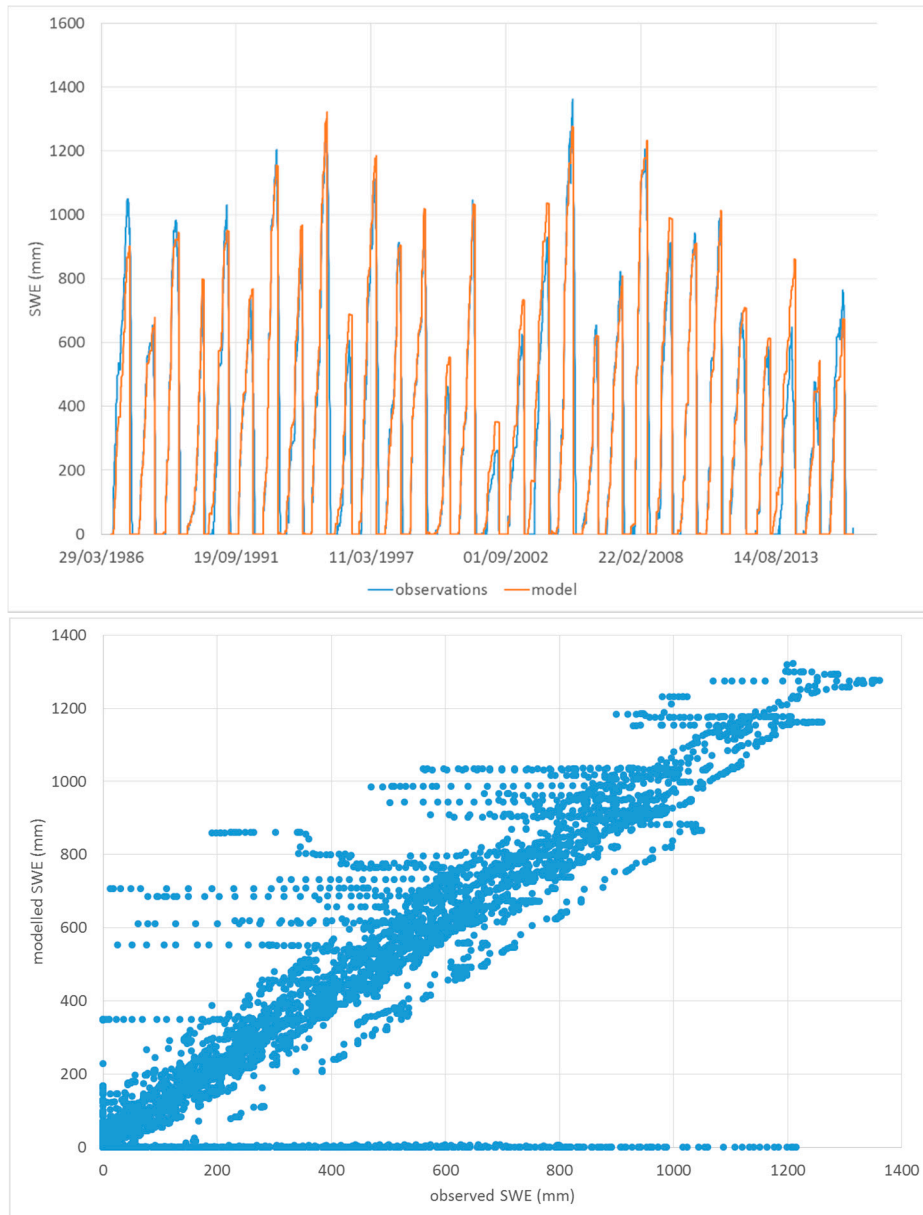


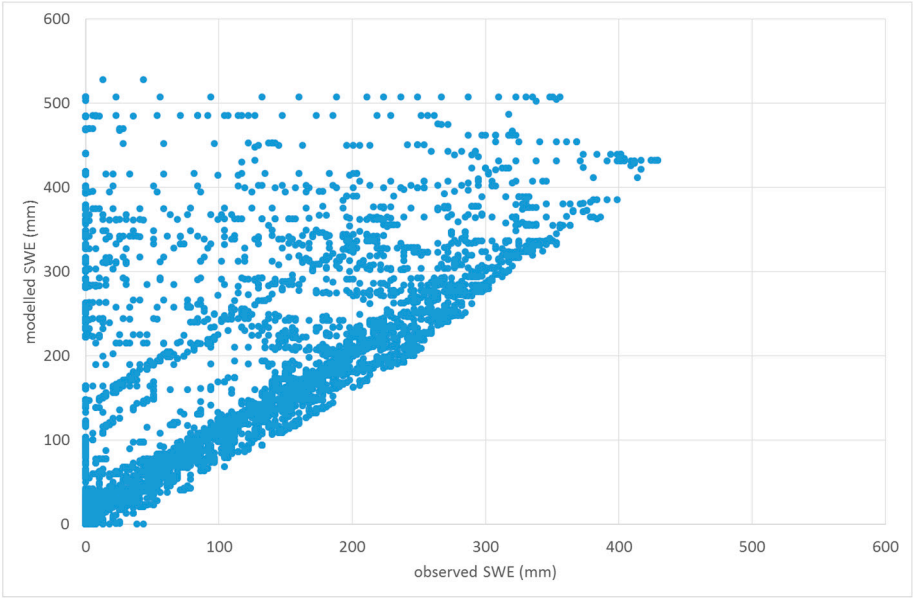
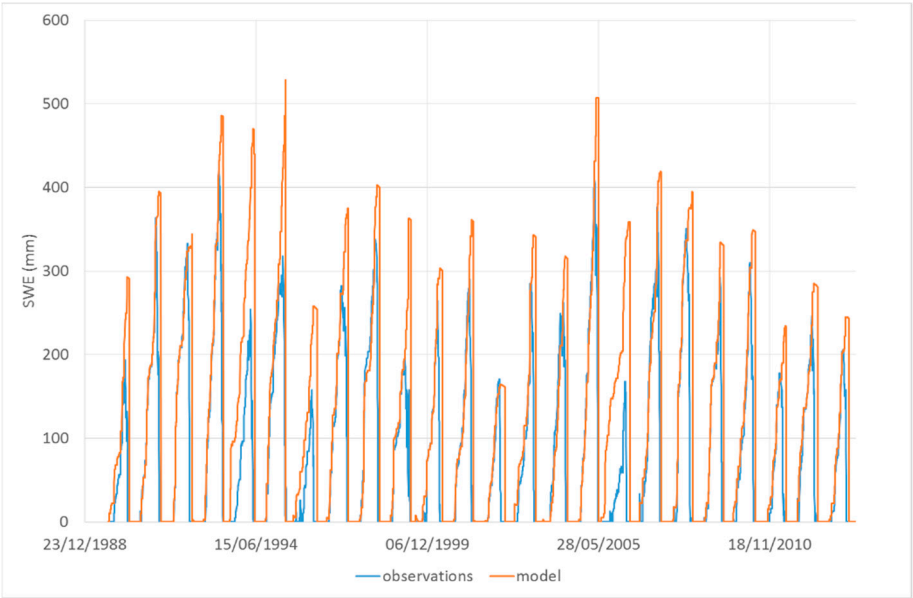
Application of the approach to selected SNOTEL sites

Observed and simulated SWE at the above SNOTEL stations are compared in more details in the following figures.

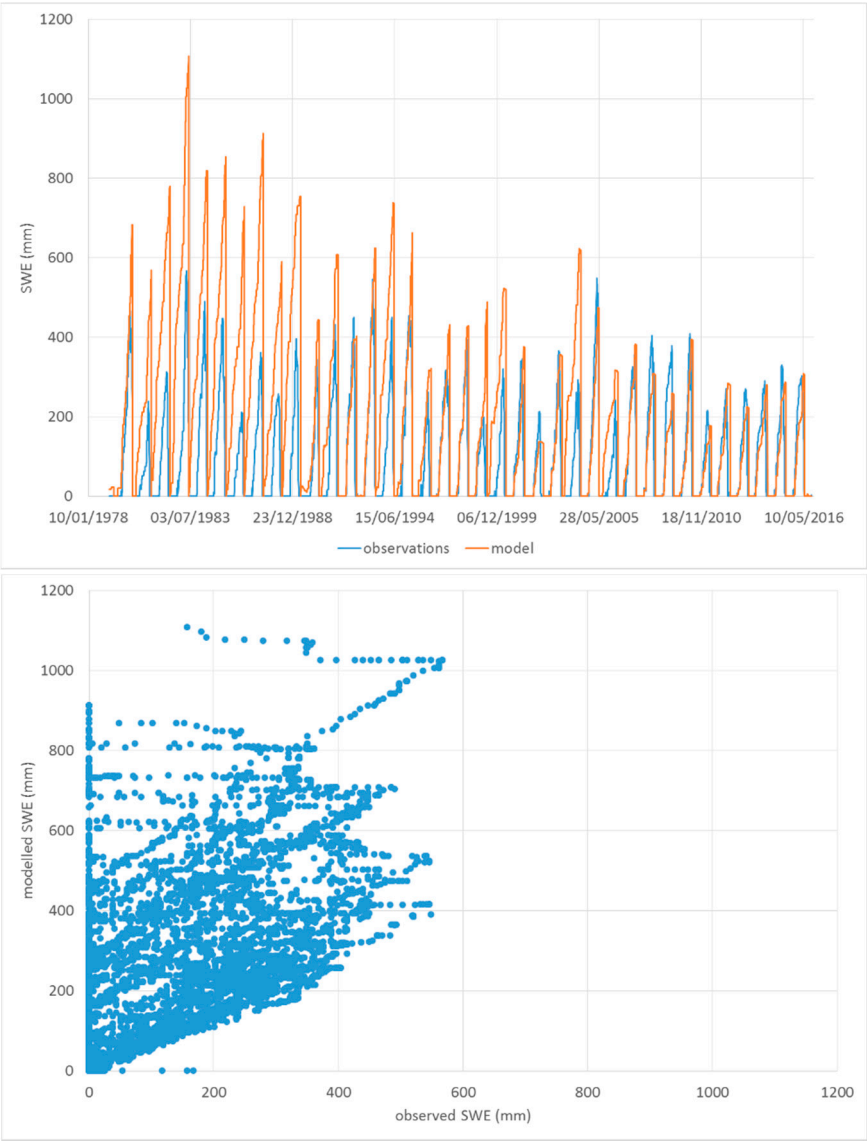
Wolf Creek Summit



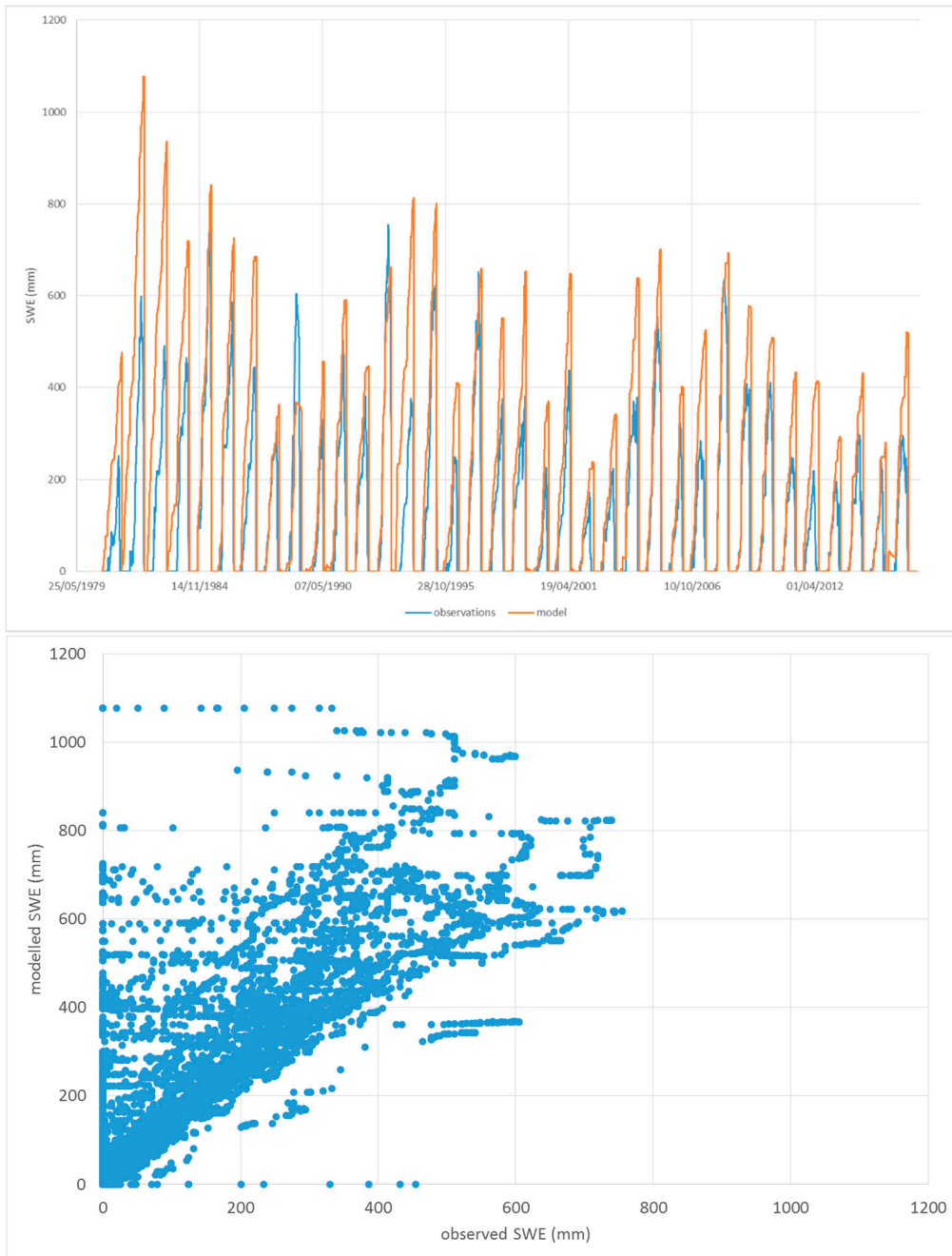
Trinchera



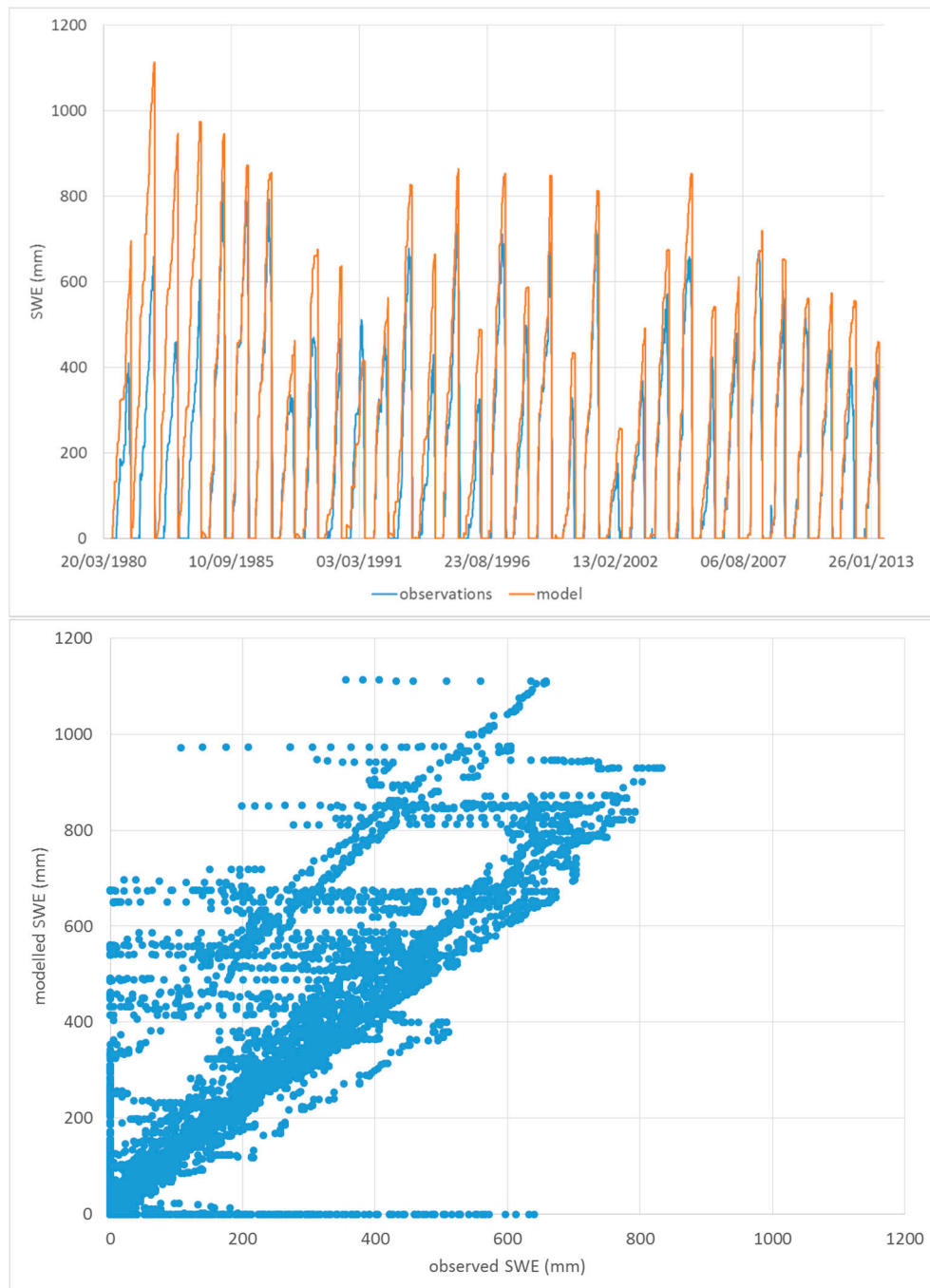
Culebra #2



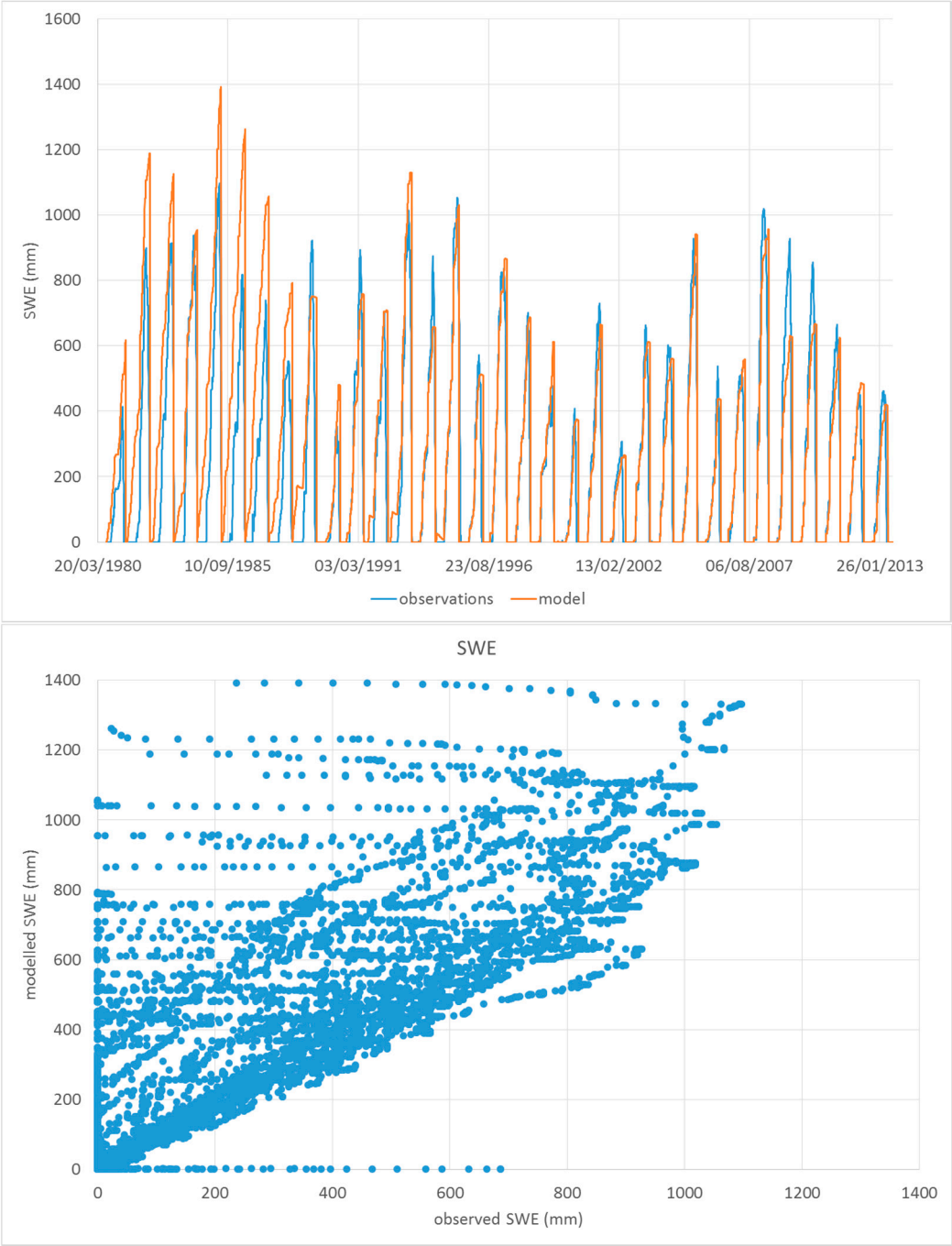
Lily Pond



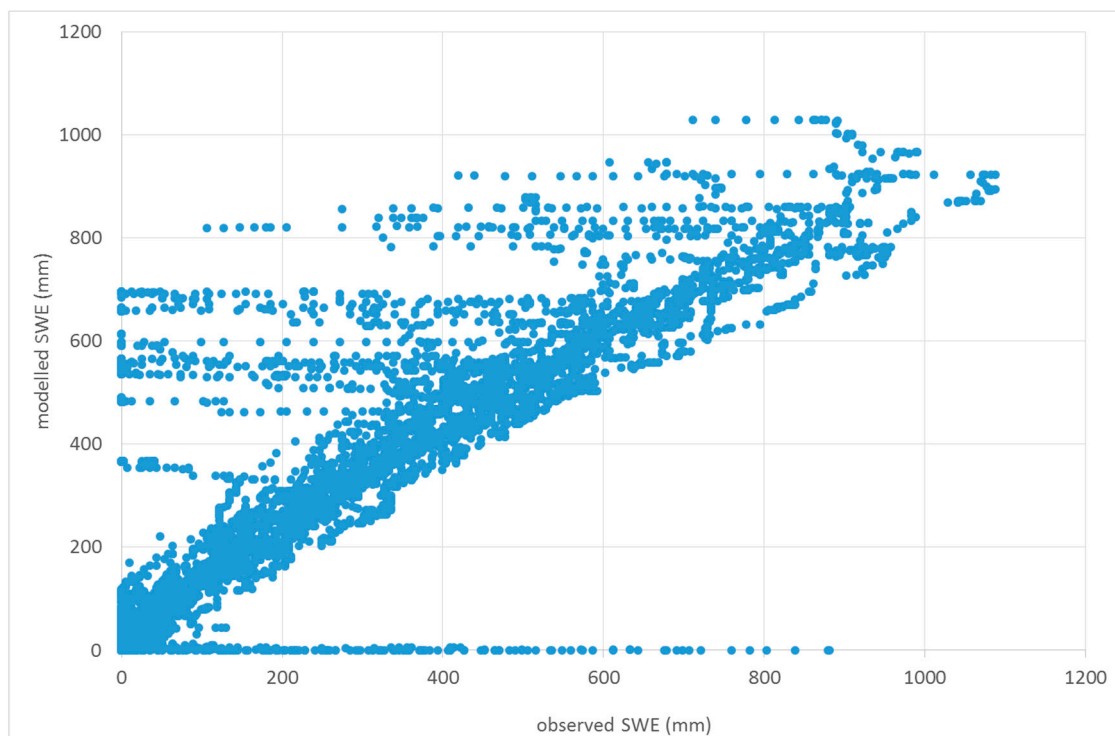
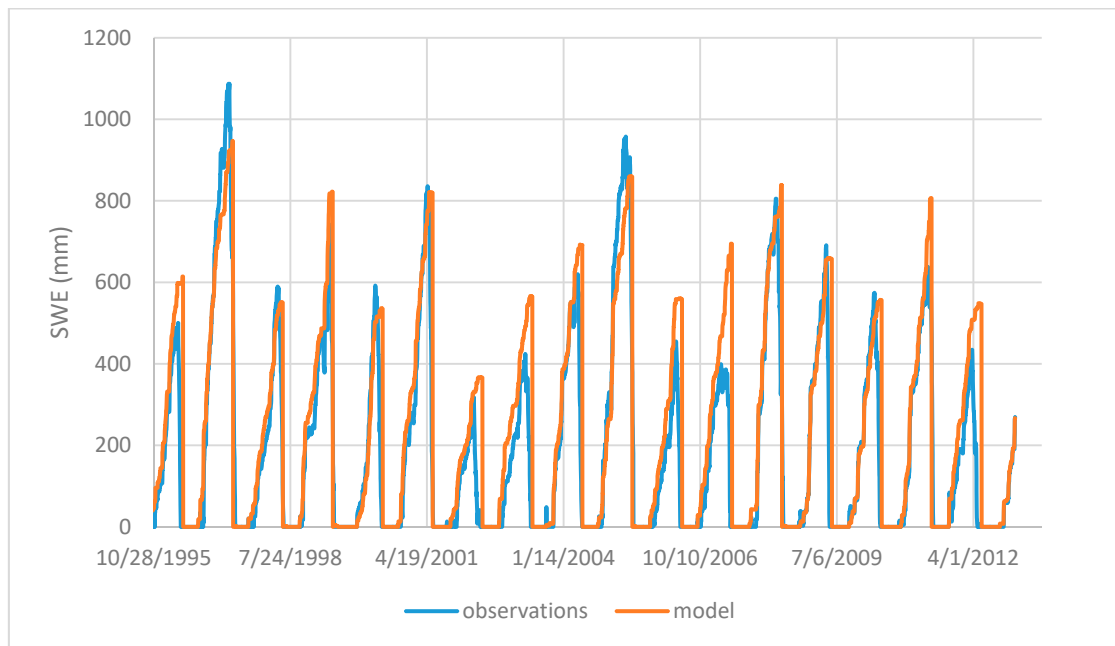
Middle Creek



Cumbres Trestle



Beartown



Additional illustration material

Table S1. Corrections for the stations with snowmelt coefficients below 1 mm/°C day.
P=cumulative precipitation during snow cover; T= cumulative temperature; ΔZ = Indicative elevation difference from the nearest weather station.

Code	$\Delta Z(m)$	C_0 with Elevation-Corrected P and T (mm/°C day)	R2 with Elevation- Corrected P and T	C_0 after Adding 120 mm to P (mm/°C day)	R2 after Adding 120 mm to P
X106Y29	700	1.69	0.62	1.79	0.60
X124Y59	500	2.37	0.5	2.50	0.50
X127Y14	500	2.8	0.2	2.98	0.17
X35Y41	300	1.24	0.84	1.31	0.28
X113Y18	700	3.48	0.25	3.61	0.26
X75Y48	0	0.85	0.37	0.85	0.37

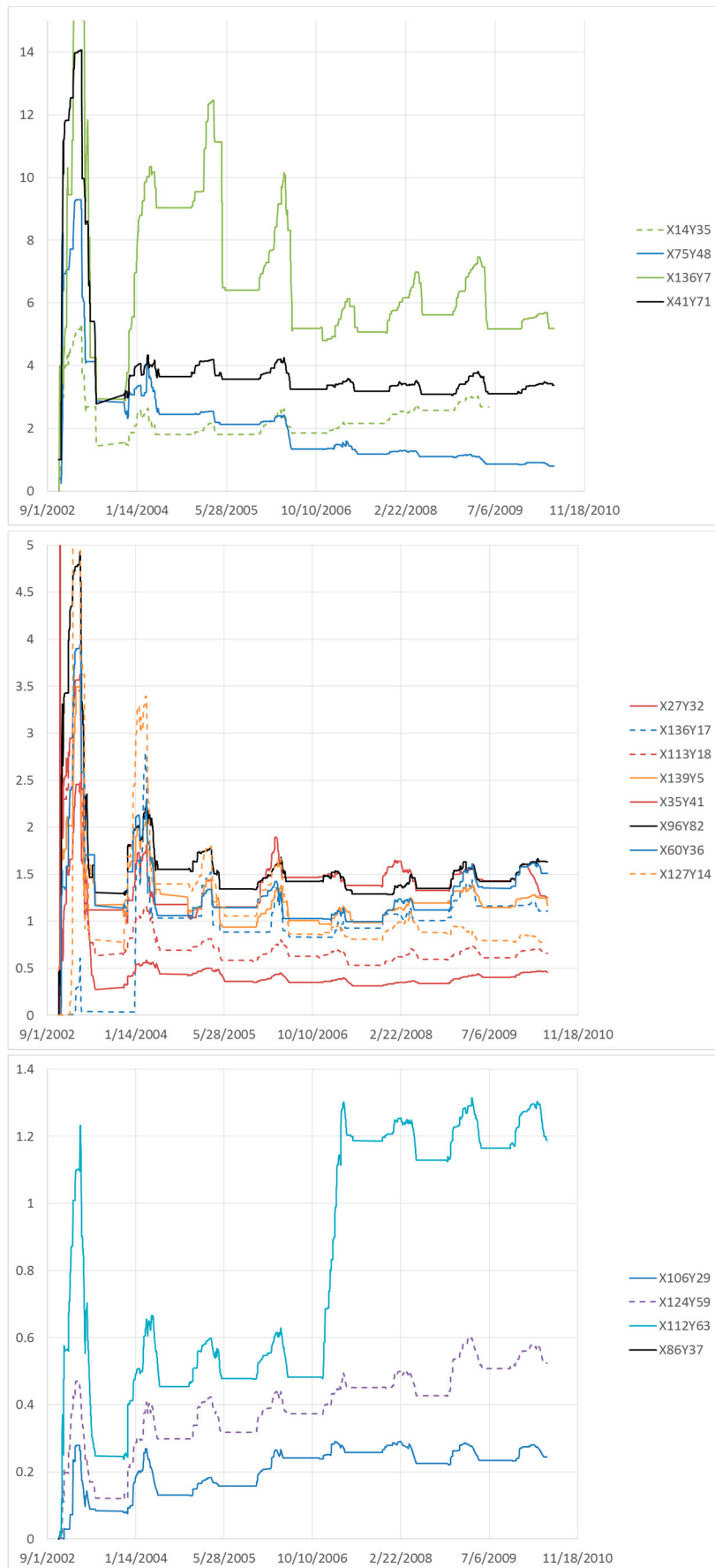
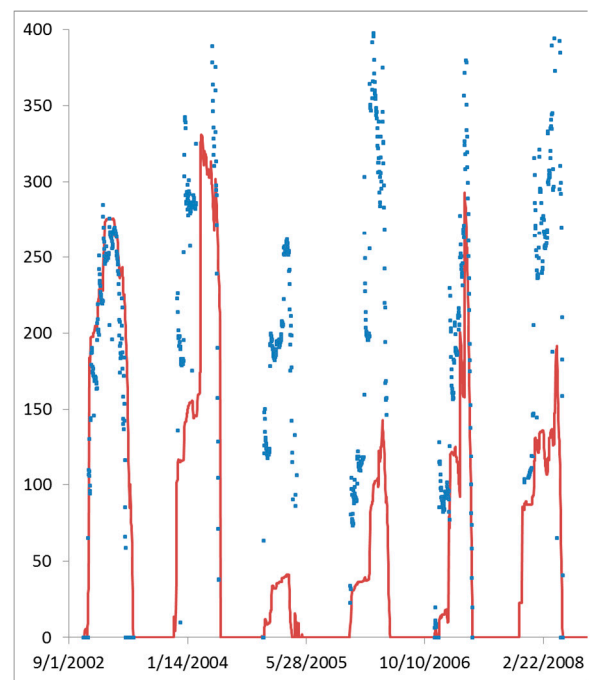
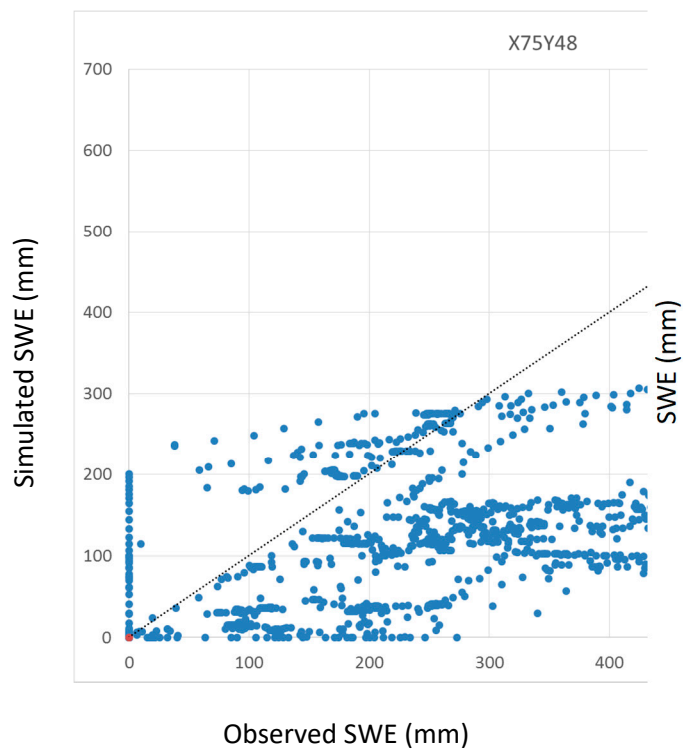
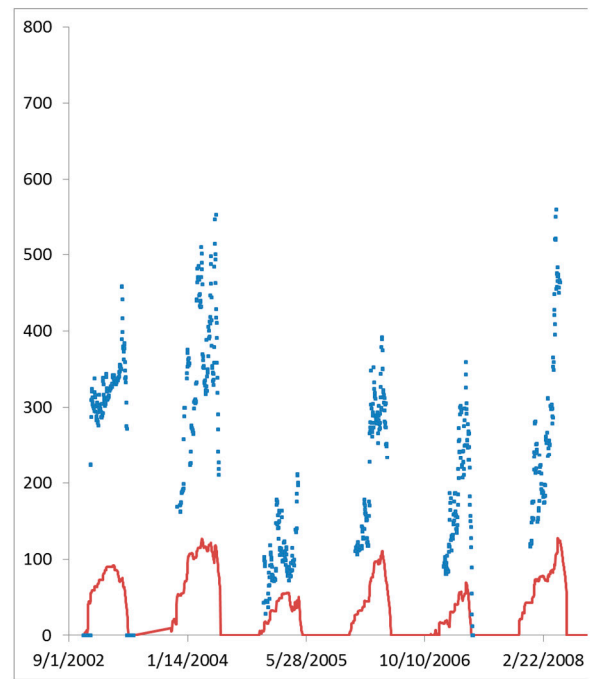
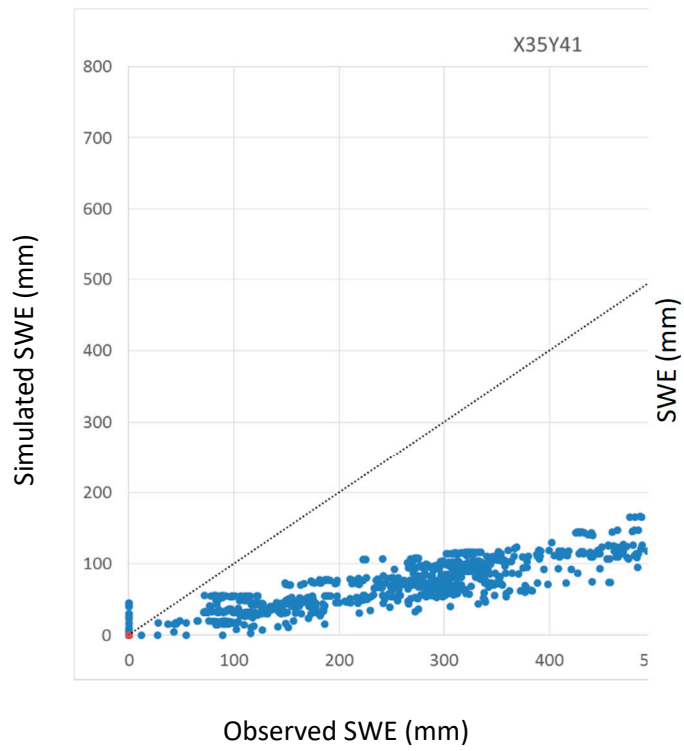
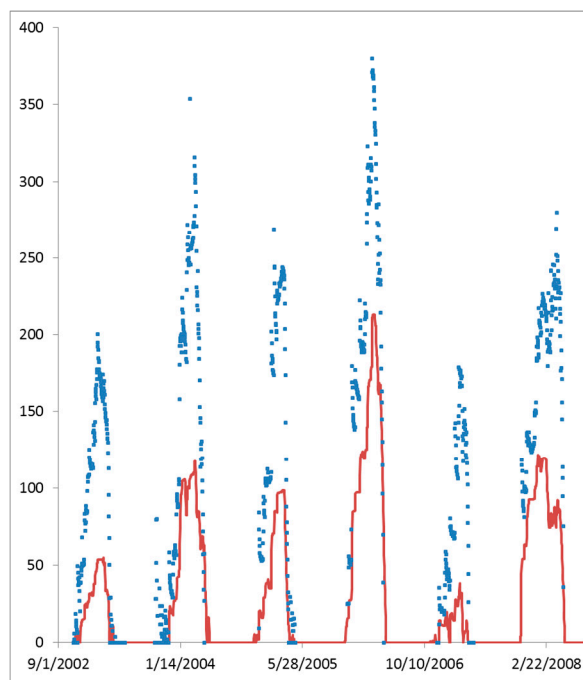
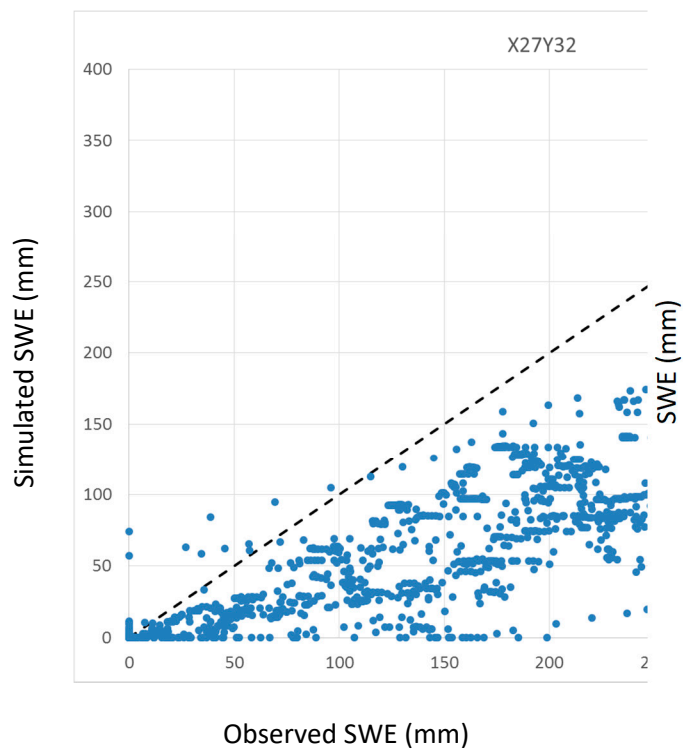
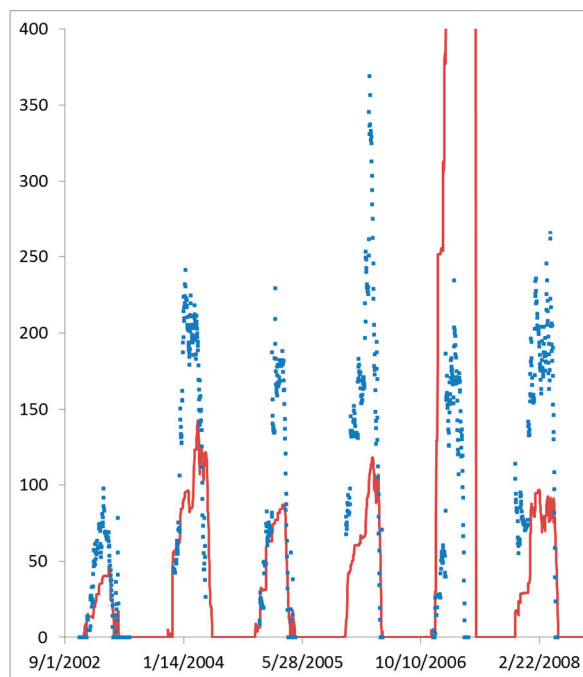
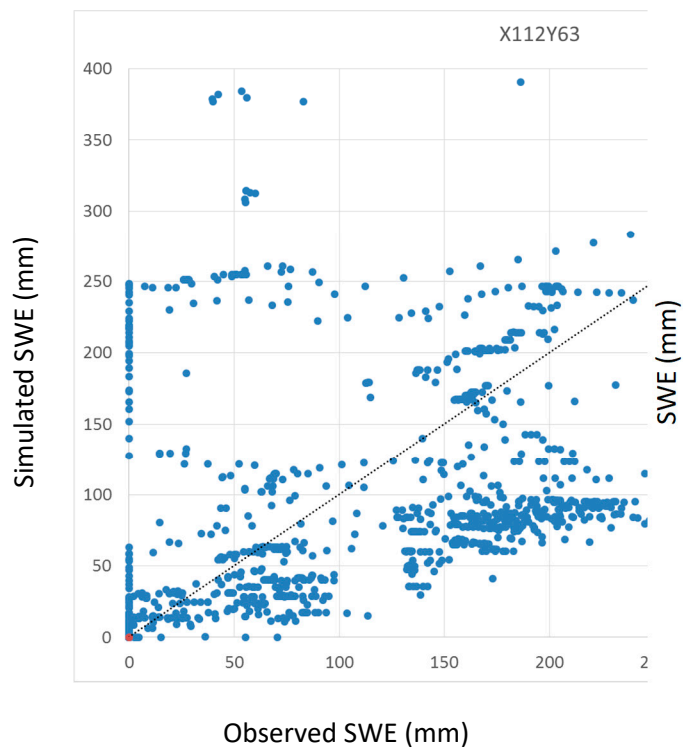
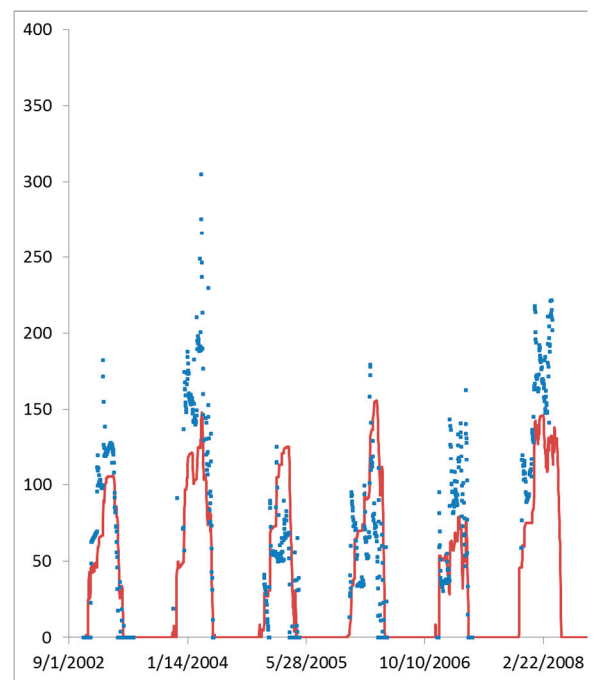
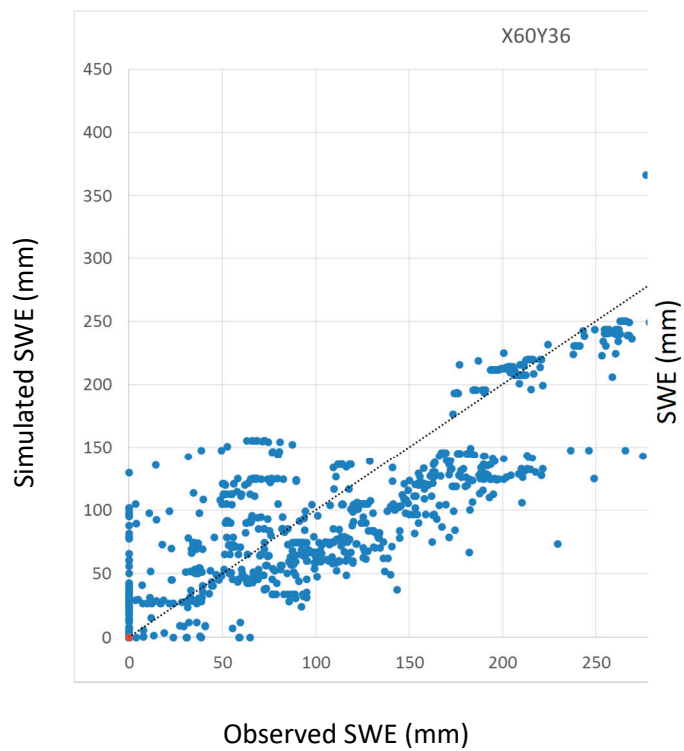
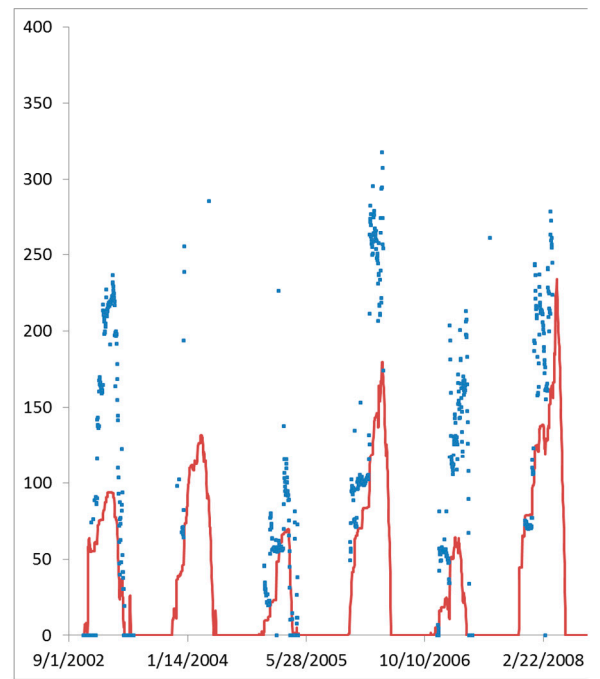
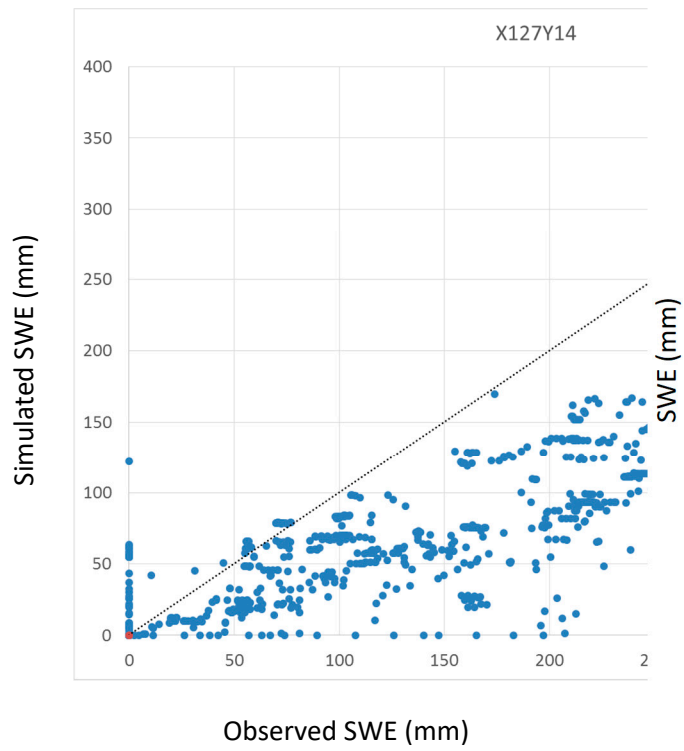
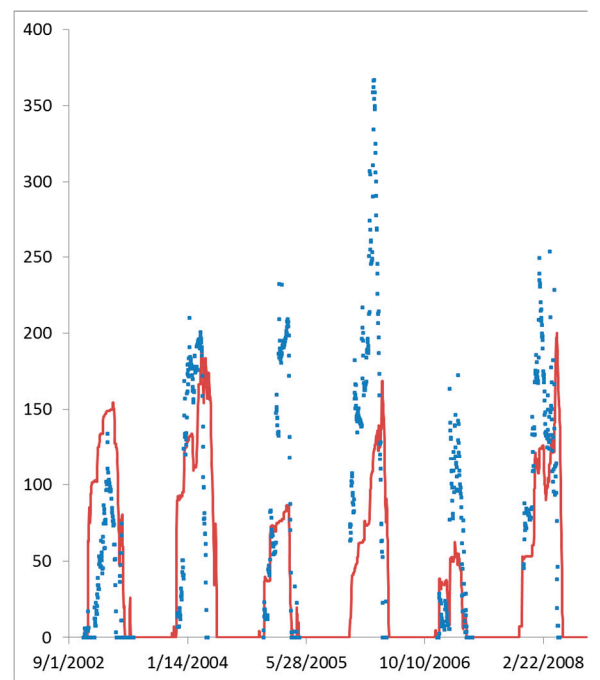
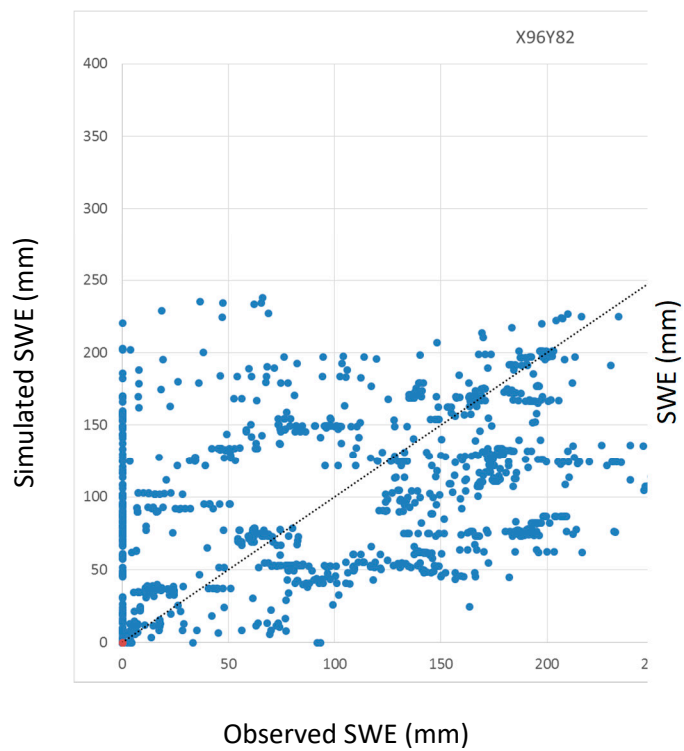
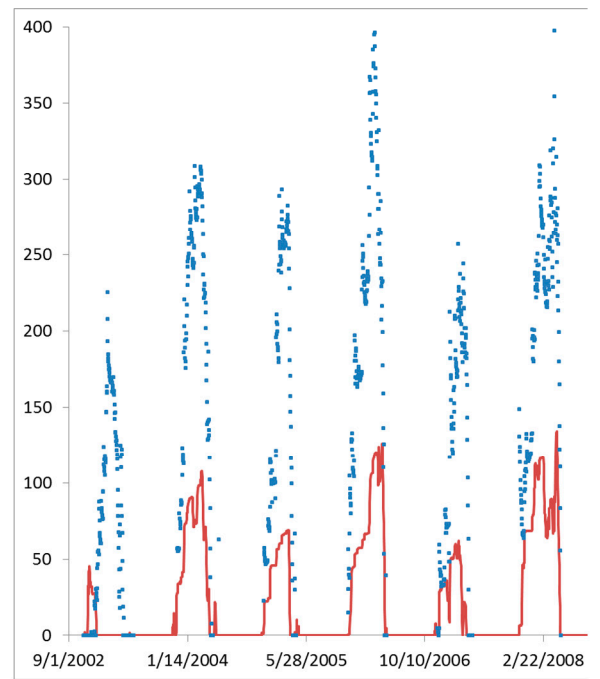
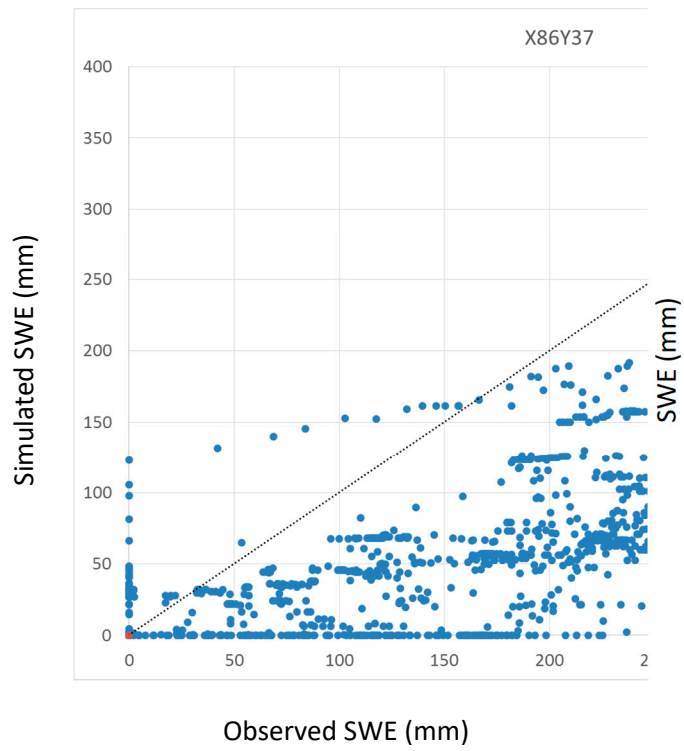


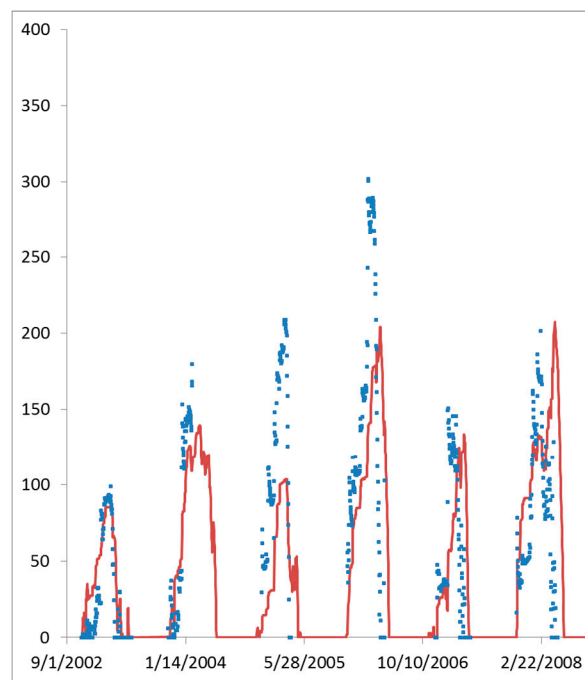
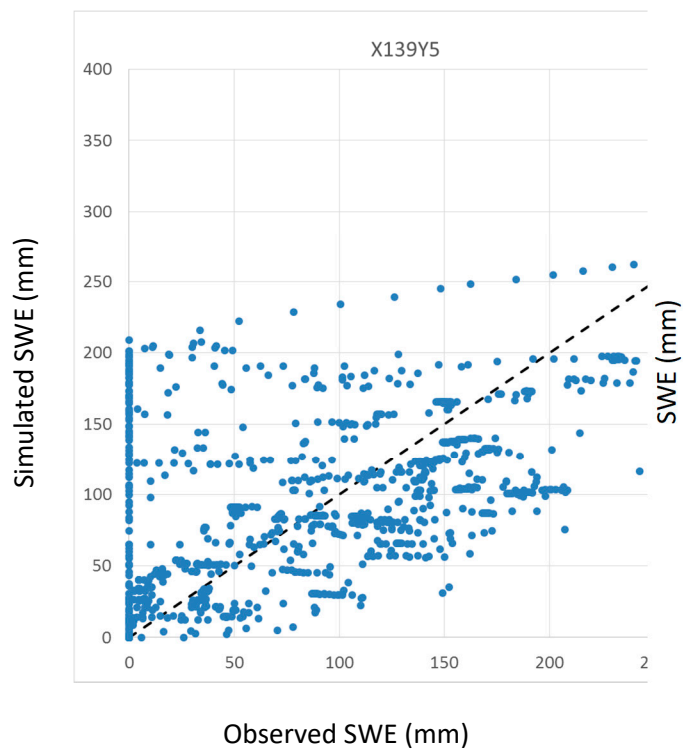
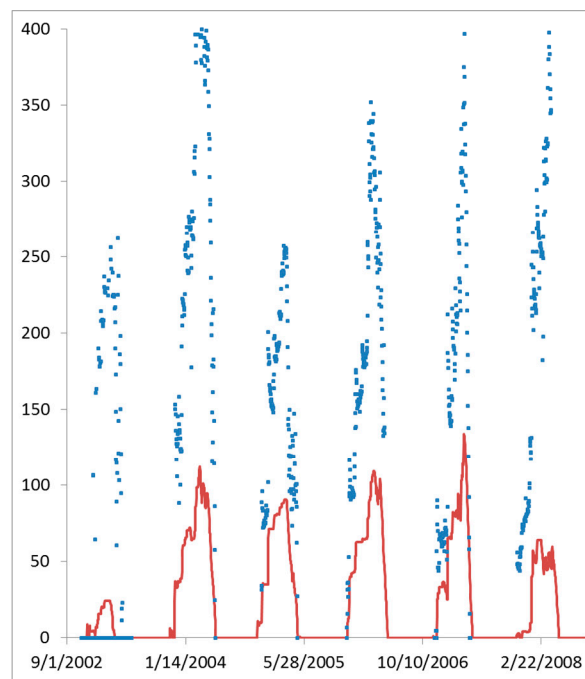
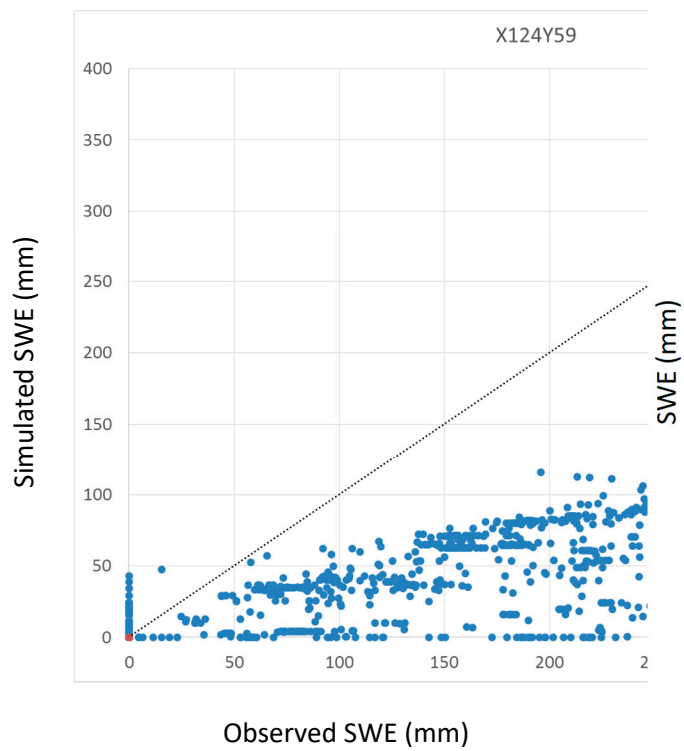
Figure S1. Estimated snowmelt coefficient as a function of the end date of the reference period for estimation.

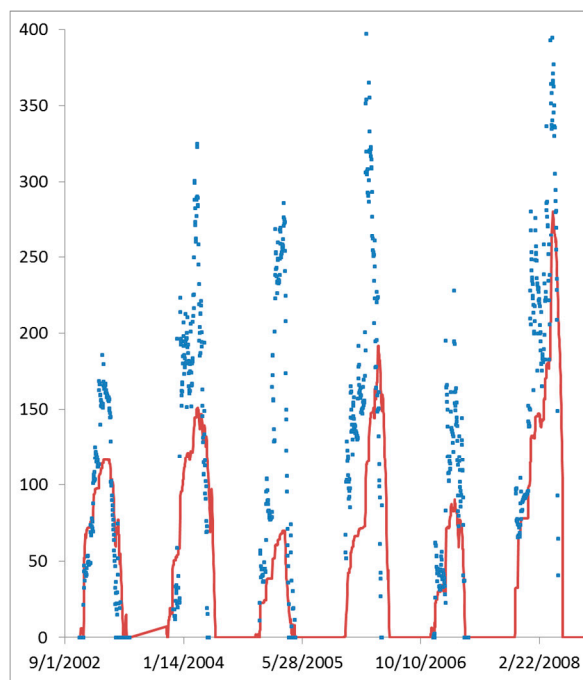
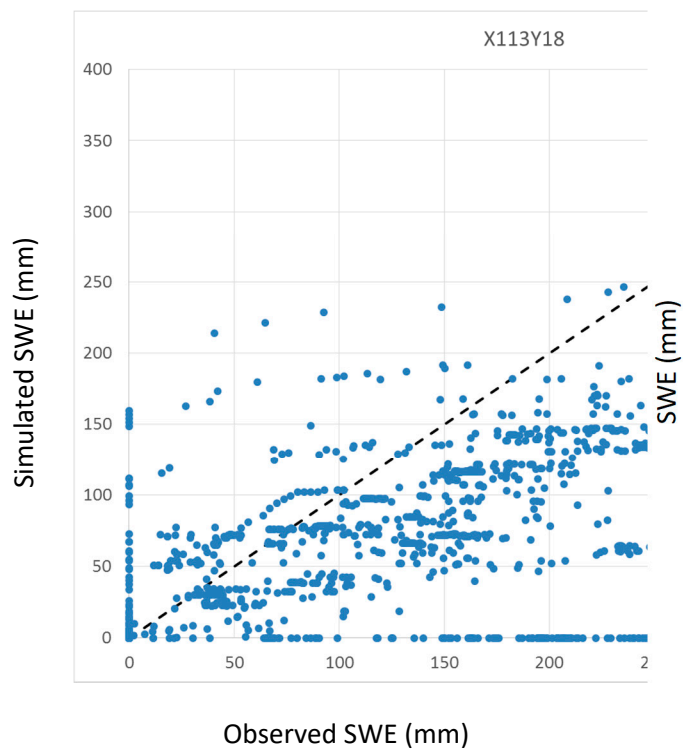
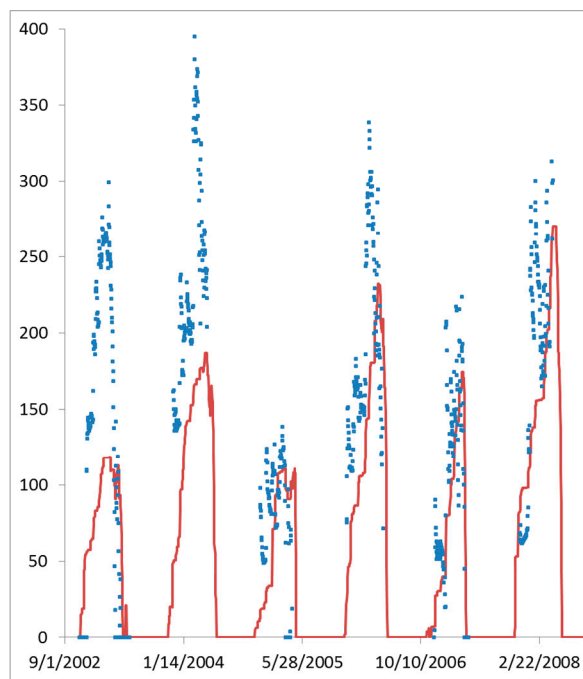
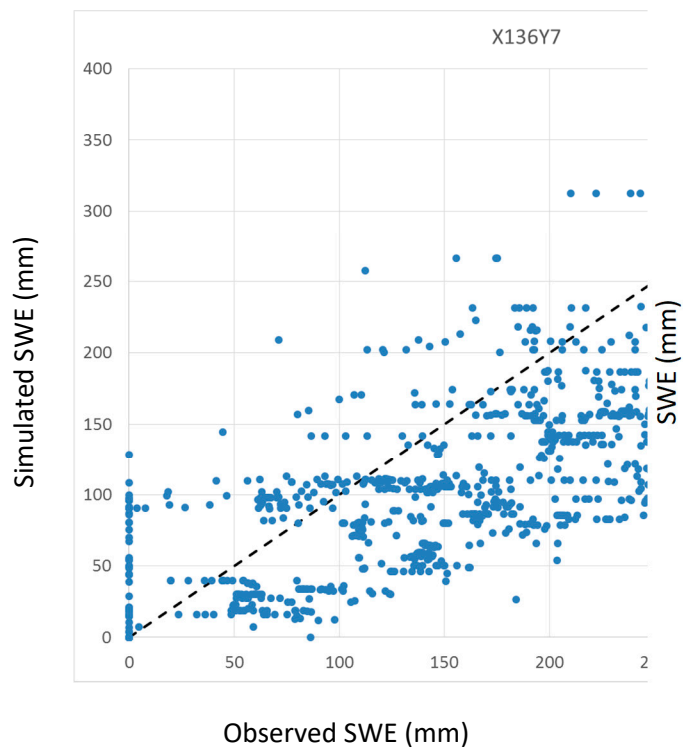












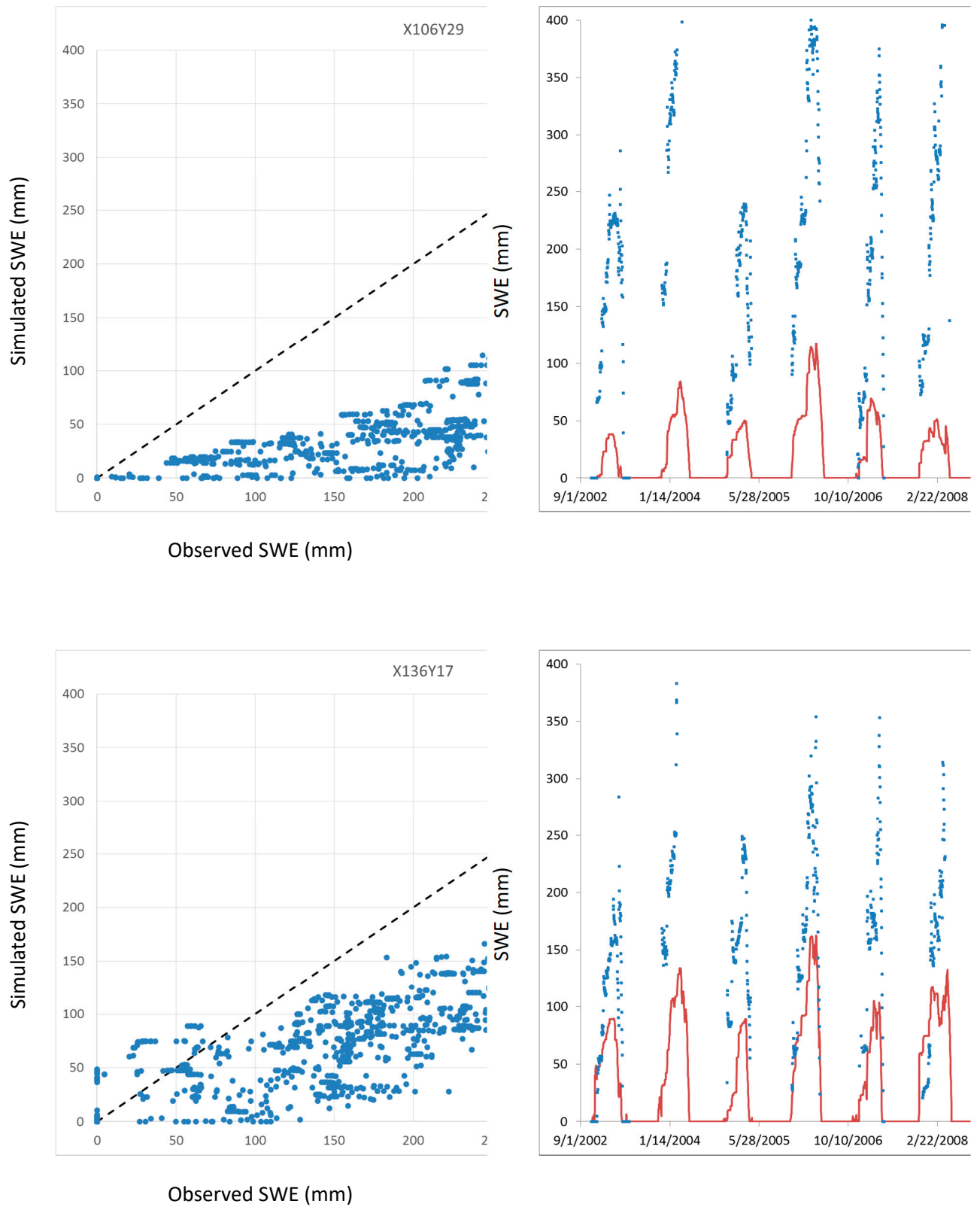


Figure S2. Scatter plots and time series of predicted and observed SWE at the measurement stations. For the identification of stations – see paper text.